

## Learning Programme Year 2 Geography Module 1 Weather and Climate updated 2018

Topic/ Content	Objectives/Skills Module 1 Weather and Climate	Homework	Assessment	Success Criteria (for E/S/D at KS3)	Stretch & Challenge (Thirst for Learning)
Lesson 1	What is the difference between Weather and Climate? What are the different aspects of the weather? How are they measured?				
Lesson 2	Draw a spider diagram showing the different aspects of the weather and what we would like to know about them.	Complete the plenary questions on aspects of the weather	Teacher assessed.		
Lesson 3	How are the different aspects of the weather measured?	Complete the poster showing 10 different instruments, what they measure and how they work.	Teacher assessed with grade and formal feedback	<p><b>Developing:</b> Will be able to correctly identify a majority of the instruments and what they measure. Be able to explain how some of them work.</p> <p><b>Secure:</b> Will be able to correctly identify most of the instruments and what they measure. Be able to explain how a majority of them work.</p> <p><b>Excellence:</b> Will be able to name all of the instruments and what they measure. Be able to explain how they work in some detail.</p>	Improve IT skills / graphical skills to present information about the different aspects of the weather.
Lesson 4	What are clouds and how are they formed? What are the three main types of cloud?	Clouds by numbers. Look at the video and write sentences to explain what the figures represent. <a href="http://www.youtube.com/watch?v=iWjBjE4lys8">http://www.youtube.com/watch?v=iWjBjE4lys8</a> <b>Luke Howard - the man who named the clouds</b>	Teacher assessed	<p><b>Developing:</b> Will explain how clouds are formed and the 3 different types.</p> <p><b>Secure:</b> Will explain how clouds form, and be able to describe the difference between the different types, and combinations of the main clouds.</p> <p><b>Excellence:</b> Will be able to name a variety of clouds, explain the different ways that they form, and know where and when they are likely to be found in the sky.</p>	Be able to obtain information from a film and write in complete sentences in detail. Complete the poster showing unusual types of clouds and write an interesting fact for each one.
Lesson 5	Why does it rain and where does it rain most in Britain? Extend Geographical vocabulary: Precipitation, Onshore, offshore windward, leeward, prevailing winds, rain shadow, evaporation and condensation.				

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Lesson 6	Types of rainfall - Relief Watch the BBC video on Relief rainfall. Draw an annotated diagram to show how relief rainfall works.				
Lesson 7	What is the relationship between the height of land and the amount of rainfall? Testing a hypothesis and using a scattergraph to show a relationship. Come to a conclusion based on evidence. Improve IT / Graphical skills	Explain why square 2C receives less rainfall than expected.	Teacher assessed with grade and formal feedback	<b>Developing:</b> Will be able to fill in the table with the correct values for height and ppt. Be able to draw the scattergraph using excel / by hand with a majority of the points accurately drawn. Line of best fit shows the relationship and there are attempts to annotate what the diagram shows. <b>Secure:</b> Will be able to draw the graph accurately and insert a line of best fit. The annotations will be clear and some attempt has been made to explain why 2C has less rainfall. <b>Excellence:</b> Will be able to draw the graph accurately and insert a line of best fit. The annotations will be detailed and there is a clear explanation of why 2C has less rainfall.	Develop IT / Graphical skills. Be able to come to logical conclusions.
Lesson 8	Make a working model to show how relief rainfall works.	Complete the presentation of the model adding colour.	Teacher assessed	<b>Developing:</b> The model has some parts that have not been finished and the presentation is untidy. <b>Secure:</b> The model works and the annotations are in the correct sequence. Presentation could be improved by neater handwriting and colour. <b>Excellence:</b> The model works and the annotations are in the correct sequence. Presentation is very good - clear handwriting and the diagram has appropriate shading.	Ability to follow instructions to produce a working model of Relief Rainfall.
Lesson 9	How does convectional rainfall occur and where and when would you see it in different parts of the world?	Write up a newspaper article on a topical event for your GITN.	Geography in the News. Peer and teacher Assessed with grade and formal feedback.		
Lesson 10	How is Frontal rainfall formed?	What are the similarities and differences between the three types of rainfall			

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Lesson 11	To show how a Depression forms				
Lesson 12	Make a model of a Depression showing a plan view and a cross section.	Revise for the end of module test.	Teacher assessed		
Lesson 13	To assess learning in the module		End of Module test on: Instruments that measure the weather, Key terms, Types of rainfall.		
Lesson 14	To showcase skills in the Geography in the News articles		Geography in the News article each half term. This is peer assessed and then teacher assessed using the mark scheme.	Boys are given success criteria the Geography in the News articles. Mark scheme available. See Appendix 1	The Geography in the News articles enables students to research a current Geographical topic and to present it as a newspaper article.



Appendix 2 Mark scheme for Geography in the News articles.

Mark scheme for Geography in the News	Effort Month	Name
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	Yes	NO
Geography in the News Logo		
Date of event		
Eye catching headline		
Map to locate area and caption		
Picture(s) and caption(s)		
Sufficient Information about event		
Links to Geography, places, key terms		
Evidence of copy and paste		
Appropriate font size		
Good use of space on the page – fills the page		
Layout of article – uses columns and paragraphs		
Accurate spelling, punctuation and grammar		
Attempts to explain the event as well as describe it		

Like
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Improve
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Marked by
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## Geography In The News.

Each half term you will be asked to produce a power point slide on some aspect of Geography that has made the news. The article should be in **Portrait not landscape**.

It might be about an earthquake, volcano. Coastal erosion, melting ice sheets, storms etc or something to do with human geography – migration, population growth, new industries opening up or old one closing down, impact of edge of city shopping centres, tourism – staycation etc

Your work will be marked by another student using the mark scheme opposite.

You will say what the good points are – **THIS HELPS YOU** and how you think it could be further improved – **THIS HELPS THEM**

You will be graded using the following method:

**Excellent** = 9 or 10 / 10 you have covered most points on the mark scheme and you have described and tried to explain the event. Presentation is excellent.

**Secure** = 7 or 8 / 10 You have covered many of the points on the mark scheme but there is no explanation of the event. The article is well laid out using columns and paragraphs.

**Developing** = 6 and below. You have covered some of the points but the article is brief, the layout doesn't use columns, captions +links to Geography may be missing.

**It looks like a nuclear apocalypse... but this is the full force of Chile's Calbuco Volcano blasting fiery debris 30,000 feet into the sky.**

More than 4000 people were evacuated as a 12-mile clearance zone was declared around the mountain which had lain dormant for 40 years.

**Lightning coming from the centre of the eruption**



The volcano erupted on Wednesday 22<sup>nd</sup> April with a second powerful blast yesterday, April the 23<sup>rd</sup>. Lava and ash covered nearby towns. Flights were cancelled and officials warned the dust could contaminate water and damage lungs. Local Mayor Gervoy Paredes said: "Residents are very, very frightened."



Map of Chile, the Calbuco Volcano has been circled

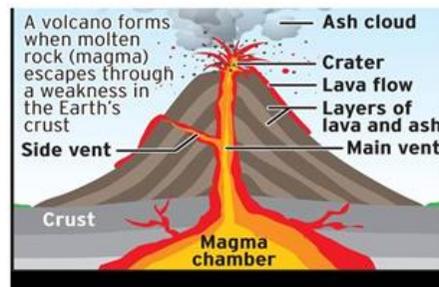
Why Volcanoes erupt

Calbuco, like 90% of all volcanoes, lies within the 'Ring of Fire', where tectonic plates converge along the edges of the Pacific Ocean. The plates are rock slabs which make up the Earth's surface, floating on a layer of molten rock under the crust.

Volcanoes are vents that allow molten rock, debris and gases to be released from the magma chambers. Eruptions occur when gas dissolves under pressure within the magma, until it cannot be contained. Volcanic mountains are formed over millions of years as boulders and lava thrown up during eruptions harden. Lava flows reach 1,200C or more, burning everything in their path. Boulders of hardening lava can rain down on villages, while mud flows from rapidly melting snow can bury towns. Ash and toxic gases cause lung damage and other health problems. Scientists estimate that more than 260,000 people have died in the past 300 years from volcanic eruptions. About 1,900 volcanoes are considered to be active and likely to erupt again.

**This has been a report by Alfie Pickles, 1B/NEWA**

Diagram showing the internal structure of a volcano



**Links to geography:** Chile, Calbuco volcano, volcano, mountain, lava, ash, dust, water, 'Ring of Fire', tectonic plates, Pacific ocean, molten rock, debris, gases, magma chambers, eruption, boulders, 1,200C, toxic.